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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/992,666

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EXAMINER

REFAI, RAMSEY

ART UNIT

PAPER NUMBER

3627

MAIL DATE

DELIVERY MODE

12/04/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

09/992,666

**Applicant(s)**

BLAIR ET AL.

**Examiner**

Ramsey Refai

**Art Unit**

3627

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 August 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 and 20-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 1-8, 11 and 20-23 is/are rejected.
- 7) ☒ Claim(s) 9 and 10 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/C)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date \_\_\_\_\_

#### DETAILED ACTION

In view of the Appeal Brief filed on Aug 16, 2007, PROSECUTION IS HEREBY REOPENED. New grounds of rejection are set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under **37 CFR 1.111** (if this Office action is non-final) or a reply under **37 CFR 1.113 (if this Office action is final)**; or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

Furthermore MPEP Chapter 1207.04 “ The examiner may, with approval from the supervisory patent examiner, reopen prosecution to enter a new ground of rejection after appellant’ s brief or reply brief has been filed. The Office action containing a new ground of rejection may be made final if the new ground of rejection was (A) necessitated by amendment, or (B) based on information presented in an information disclosure statement under 37 CFR 1.97(c) where no statement under 37 CFR 1.97(e) was filed. See MPEP § 706.07(a). >Any after final amendment or affidavit or other evidence that was not entered before must be entered and considered on the merits.”

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below.

Claims 1-11 and 20-23 are pending.

Claims 9-10 are objected.

Claims 1-8, 11, and 20-23 are rejected.

***Response to Arguments***

1. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

***Claim Language***

2. Claims 1 and 6 contain “intended use” functionality language, such as: “to obtain an automatic failover to allow...,” and “to allow an automatic intermediate failover ...”

Applicant is advised that “intended use” language in the claims does not add any patentable weight.

***Claim Rejections – 35 USC § 112***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 21-23 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claims recite single means and are therefore subject to an undue breadth rejection. Regarding single means, MPEP ch. 2164.08(a) states:

“A single means claim, i.e., where a means recitation does not appear in combination with another recited element of means, is subject to an undue breadth rejection under 35 U.S.C. 112, first paragraph. In re Hyatt, 708 F.2d 712, 714-715, 218 USPQ 195, 197 (Fed. Cir. 1983) (A single means claim which covered every conceivable means for achieving the stated purpose

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was held nonenabling for the scope of the claim because the specification disclosed at most only those means known to the inventor.). When claims depend on a recited property, a fact situation comparable to Hyatt is possible, where the claim covers every conceivable structure (means) for achieving the stated property (result) while the specification discloses at most only those known to the inventor.”

***Claim Rejections – 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 6 and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by AAPA (Applicant Admitted Prior Art, referencing US Publication 2003/0097469).

6. As per claim 6, AAPA teach a method for gathering diagnostic data, which are associated with a plurality of printing devices, by a central processing unit via a plurality of intermediate collectors that are connected to one or more of the plurality of printing devices through a network, where an intermediate collector is a computer remote from the control processing unit configured to collect diagnostic data from a selected printing device, the method comprising:

determining which of the plurality of intermediate collectors are capable of communicating with one or more of the plurality of printing devices to obtain a communication

map to allow an automatic intermediate collector failover to occur if an intermediate collector fails to operate (**paragraph [0003-0004]**);

receiving a notification signal within the central processing unit that one of the intermediate collectors is available (**paragraph [0003]**);

identifying one of the printing devices for which the diagnostic data is desired;  
determining whether the identified printing device is capable of communicating with the available intermediate collector (**paragraphs [0004-0005]**);

if the identified printing device is capable of communicating with the available intermediate collector: transmitting a request signal from the central processing unit to the available intermediate collector requesting the diagnostic data for the identified printing device (**paragraphs [0004-0005]**); and

transmitting signals indicative of the diagnostic data from the identified printing device to the central processing unit via the available intermediate collector (**paragraph [0005]**).

7. As per claim 11, AAPA teach:

transmitting signals indicative of identifiers of the intermediate collectors and the respective printing devices with which the intermediate identifiers are capable of communicating to the central processing unit (**paragraph [0003]; device addresses**); and

wherein the determining whether the identified printing device is capable of communicating with the available intermediate collector includes: comparing the identifier of the identified printing device with the identifiers of the printing devices capable of communicating with the available intermediate collector (**paragraphs [0003]; comparing device address to determine communication capabilities with other devices**).

***Claim Rejections – 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1, 4, and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA (Applicant Admitted Prior Art, referencing US Publication 2003/0097469).

10. As per claim 1, AAPA teach a method for configuring data communication paths between a central controller and a plurality of printing devices via a plurality of appliances, the method comprising:

one or more appliances (**data collection devices**) where an appliance is a computer remote from the central controller configured to collect diagnostic data from one or more of the plurality of printing devices (**paragraph [0002]**) and to transmit the diagnostic data to the central controller (**paragraphs [0004–0005]; data collection devices monitor and obtain diagnostic data from printers**);

for each of the printing devices, determining communication capabilities with the one or more appliances to determine communication paths between the plurality of printing devices and the one or more appliances (**paragraph [0004]; mapping information is obtained, each of the devices communications and is associated with at least one data collection device**);

transmitting signals indicative of the communication capabilities to the central controller (**paragraph [0003]**);

and

mapping respective communication paths between the central controller and the printing devices via the one or more appliances as a function of the communication capabilities to obtain an automatic appliance failover to allow diagnostic data to be collected from a selected printing device by way of multiple appliances (**paragraphs [0004]; each of the devices communicate with at least one data collector**).

AAPA fails to teach *ensuring that the appliances are active*. However, it would have been obvious to ensure that the devices are active prior to determining communications capabilities because doing so would allow for the mapping of devices to be properly obtained.

11. As per claim 4, AAPA teach:

for each of the printing devices, determining a second communication capability between a second appliance and the printing device; transmitting signals indicative of the second communication capabilities to the central controller; and wherein the mapping includes: mapping the respective communication paths between the central controller and the printing devices via the first and second appliances as a function of the first and second communication capabilities (**paragraphs [0003-0004]: mapping of devices is performed to identify how devices communicate with each other, each device communicates with at least one of the data collection devices**).

12. As per claim 5, AAPA teach the mapping includes: substantially balancing respective printing device loads across the appliances (**paragraph [0004]; load balancing**).

13. Claims 20-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA (Applicant Admitted Prior Art) in view of " Official Notice" .

14. As per claim 20, AAPA teach a system comprising:  
a plurality of printing devices (**paragraph [0002]**);



a plurality of appliances where an appliance is a computer configured to collect diagnostic data from one or more of the plurality of printing devices (**paragraph [0004]; data collection devices**);

a communication network configured to provide a plurality of communication path between components connected to the communication network (**paragraph [0003]; network**);

the plurality of printing devices and the plurality of appliances being connected to the communication network where communication paths are provided between one or more of the plurality of printing devices and one or more of the plurality of appliances (**paragraphs [0003-0004]**);

a controller remote from the appliances configured to communicate with the plurality of appliances and being configured to generate a map of the communication paths between the printing devices and the appliances based on signals received from the plurality of appliances; the controller being configured to receive, from a first appliance from the plurality of appliances, diagnostic data relating to a selected printing device (**paragraphs [0003-0004]**).

AAPA teach a central controller that stores mapping information of how the devices on the network are connected to each other and that each of the devices communicate with at least one data collection device to collect diagnostic data that is sent to the central controller (**paragraphs [0003-0004]**). AAPA fails to teach that the controller performs an automatic appliance failover to a second appliance using the map of the communication paths if the first appliance is disabled in order to receive the diagnostic data relating to the selected printing device.

However, “ Official Notice” is taken that the concept and advantage of automatic failover for devices is well known and expected in the art. It would have been obvious to one of ordinary skill in the art to modify AAPA to include an automatic failover because doing so would

allow for diagnostic data to be obtained from a different data collection devices if a failure occurs at the first data collection device.

15. As per claim 21, AAPA teach automatically mapping the communication paths based on signals received from the plurality of appliances (**paragraph [0003]**).

16. As per claim 22, AAPA fails to teach *ensuring that the appliances are active*. However, it would have been obvious to ensure that the devices are active prior to determining communications capabilities because doing so would allow for the mapping of devices to be properly obtained.

17. As per claim 23, AAPA teach means for identifying addresses of the appliances and addresses of the printing devices with which the appliances are capable of communicating (**paragraph [0003]**).

18. Claims 2, 3, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA in view of Basso et al (US Patent No. 6,370,119).

19. As per claim 2, AAPA teach the mapping of devices (**paragraphs [0003-0004]**) but fail to teach *identifying an optimal path between the appliance and the printing device*; and mapping the respective communication paths between the central controller and the printing devices as a *function of the optimal paths*. However, identifying optimal paths of a network is well known in the art as evidenced by Basso et al , who teach a method for determining the optimal path in a network between two nodes (**abstract, column 2, line 39-column 3, line 10**). It would have been obvious to one of ordinary skill in the art at the time of the Applicant' s invention to combine AAPA and Basso et al because doing so would provide mapping that indicates optimal paths to printers in order to quickly and efficiently collect diagnostic data.

20. As per claim 3, AAPA-Basso et al teach the identifying includes at least one of:

determining one of a plurality of paths between a selected appliance and a selected printing device having a least number of hops; and determining one of a plurality of paths between the selected appliance and the selected printing device achieving a shortest communication time (**Basso et al: column 2, lines 44-50, abstract**).

21. As per claim 7, this claim is similar to claim 2 and therefore is rejected under the same rationale.

22. Claims 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA in view of Basso et al and in further view of " Official Notice" .

23. As per claim 8, AAPA fail to teach if the central processing unit has not received the notification signal for a predetermined time that one of the intermediate collectors is available, retrieving the signals indicative of the diagnostic data for the printing devices having the respective optimal paths including the intermediate collector via another one of the intermediate collectors. However, " Official Notice" is taken that the concept and advantage of signals with timeout periods is well known in the art. Also, " Official Notice" is taken that the concept and advantage of automatic failover for devices is well known and expected in the art. It would have been obvious to one of ordinary skill in the art at the time of the Applicant' s invention to modify AAPA to include the use of notification signals with predetermined time periods because doing so would allow for the controller to render a device inactive if no response is received within a predetermined time. It would have also been obvious to modify AAPA to include an automatic failover because doing so would allow for diagnostic data to be obtained from a different data collection devices if no signal is received from a first data collection device.

***Allowable Subject Matter***

24. Claims 9-10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramsey Refai whose telephone number is (571) 272-3975. The examiner can normally be reached on M-F 8:30 - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ryan Zeender can be reached on (571) 272-6790. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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